Applicants respectfully request that the above-referenced patent application be amended as follows:

In the Claims:

Please cancel all of the pending claims (claims 1-14 and 18-20), and replace them with the following new claims 21-37.

21. A method of treating a demyelinating disorder comprising administering an effective amount of an inhibitor of the interaction of glutamate with the α-amino-3-hydroxy-5-methyl-4-isoxazole-propionate (AMPA) receptor complex.

22. The method of claim 21, wherein the demyelinating disorder is acute disseminated encephalomyelitis, acute demyelinating polyneuropathy (Guillain Barre syndrome), chronic inflammatory demyelinating polyneuropathy, multiple sclerosis, Marchifava-Bignami disease, central pontine myelinolysis, Devic syndrome, Balo disease, HIV- or HTLV-myelopathy, progressive multifocal leucoencephalopathy, or a secondary demyelinating disorder.

23. The method of claim 22, wherein the secondary demyelinating disorder is CNS lupus erythematodes, polyarteriitis nodosa, Sjögren syndrome, sarcoidosis or isolated cerebral vasulitis.

24. The method of claim 21, wherein the inhibitor is an antagonist of the binding of glutamate to the AMPA receptor.

25. The method of claim 21, wherein the inhibitor is an L-glutamate derivative, an α-amino-3-hydroxy-5-methyl-4-isoxazolepropionate derivative, arylthioxaline, acid amide, hydrazone, quinoline, quinolinone, quinoxaline, quinoxalinedione, triazoloquinoxalinedione, pyrrolylquinoxalindione, quinazolinone, quinazolinedione, quinoxalinone, phenylpyridazinoindoledione, indenopyrazinone, imidazoloquinoxalinone, indolo-pyrazinone, imidazo-pyrazinone, triazolo-pyrazinone, benzothiadiazine, 4-hydroxypyrrolone, pyrrolo-pyridazinone, phthalazine, quinolone,

amino-alkanoic acid, isatine, phenyl-azolophthalazine, amino- or desamino- 2,3-benzodiazepine, β-carboline-3-carboxylic acid, alkoxy-phenyl-benzodiazepine, isoquinolinyl-carboxylic acid derivatives, acetyl-aminophenyl-dihydro-methyl-dioxolo-benzodiazepine, pyrimidinone, oxadiazol, isatinoxime, decahydroisoquinoline, piperazine derivative, tetramic acid derivatives, or a sulphamate.

26. The method of claim 21, wherein the inhibitor is L-glutamic acid diethylester, 2,3-dihydroxy-6-nitro-7-sulfamoyl-benzo(F)quinoxaline (NBQX), 6,7-dinitro-quinoxaline-2,3-dione (DNQX), 6-nitro-7-cyano-quinoxaline-2,3-dione (CNQX), 6-(1-imidazolyl)-7-nitro-quinoxaline-2,3(1H,4H)-dione (YM90K), (3RS,4aRS,6RS,8aRS)-6-(2-(IH-tetrazole-5-yl)ethyl)-decahydroiso-quinoline-3-carboxylic acid (LY293558), 9-methyl-amino-6-nitro-hexahydro-benzo(F) quinoxalinedione (PNQX), 8-methyl-5-(4-(N,N-dimethylsulphamoyl)phenyl)-6,7,8,9-tetrahydro-1H-pyrrolo[3,2h]-isoquinoline-2,3-dione-3-O-(3-hydroxybutyric acid-2-yl)oxime (NS 1209), 6,7-dichloro-2-(IH)-quinolinone-3-phosphonate (S 17625-2), and [1,2,3,4-tetrahydro-7-morpholinyl-2,3-dioxo-6-(trifluoromethyl)quinoxalin-1-y1]methyl-phosphonate (ZK200775), 1-(4-aminophenyl)-4-methyl-7,8-methylene-dioxy-5H-2,3-benzodiazepine (GYKI52466), (-)1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-4,5-dihydro-3-methylcarbamoyl-2,3-benzodiazepine (GYK153773), topiramate, 3-(2-chlorophenyl)-2-[2-[6-[(diethylamino)methyl-2-pyridinyl]ethenyl]-6-fluoro-4(3H)-quinazolinone (CP465022) and 5-(2-[N,N-dimethylamino]oxy-phenyl)-3-phenyl-1,2,4-oxadiazol (BIIR561).

B1 Cont

27. The method of claim 21, wherein the inhibitor is an AMPA receptor channel blocker.

28. The method of claim 27, wherein the AMPA receptor channel blocker is fluorowillardiine or Joro spider toxin.

29. A method of treating a demyelinating disorder comprising administering a combination of an effective amount of an inhibitor of the interaction of glutamate with the α-amino-3-hydroxy-5-methyl-4-isoxazole-propionate (AMPA) receptor complex combined with one or more of: an immunosuppresive agent (e.g. corticotrophin, a

glucocorticoid, cyclophosphamide, cyclosporine, azothioprine or mitozantrone), an interferon (IFN) (IFN-beta-la e.g. Rebif and Avonex; IFN-beta-1b e.g. Betaseron and Betaferon; IFN-alpha-2a e.g. Alphaferone; IFN-alpha-2b e.g. Viraferon), a phosphodiesterase type IV inhibitor, a humanised monoclonal antibody against a leukocyte adhesion molecule (e.g. Antegran), a synthetic polypeptide (e.g. glatiramer acetate, copolymer-1), a tissue matrix metalloproteinase (MMP) inhibitor (e.g. hydroxamic acid-based inhibitors of MMPs), or a tumour necrosis factor (TNF) inhibitor (e.g. Thalidomide or TNF-receptor immunoglobulin fusion protein).

30. The method of claim 29, wherein said combination is administered simultaneously, separately or sequentially.

31. A pharmaceutical composition for treating a demyelinating disorder comprising an inhibitor of the interaction of glutamate with the α-amino-3-hydroxy-5-methyl-4-isoxazole-propionate (AMPA) receptor complex and a pharmaceutically acceptable carrier, wherein the inhibitor is an L-glutamate derivative, an α-amino-3-hydroxy-5-methyl-4-isoxazolepropionate derivative, arylthioxaline, acid amide, hydrazone, quinoline, quinolinone, quinoxaline, quinoxalinedione, triazoloquinoxalinedione, pyrrolylquinoxalindione, quinazolinone, quinazolinedione, quinoxalinone, phenylpyridazinoindoledione, indenopyrazinone, imidazoloquinoxalinone, indolo-pyrazinone, imidazo-pyrazinone, triazolo-pyrazinone, benzothiadiaziue, 4-hydroxypyrrolone, pyrrolo-pyridazinone, phthalazine, quinolone, amino-alkanoic acid, isatine, phenyl-azolophthalazine, β-carboline-3-carboxylic acid, isoquinolinyl-carboxylic acid derivatives, pyrimidinone, oxadiazol, isatinoxime, decahydroisoquinoline, piperazine derivative, tetramic acid derivatives, or a sulphamate.

31 Cont

32. The pharmaceutical composition of claim 31, wherein the demyelinating disorder is acute disseminated encephalomyelitis, acute demyelinating polyneuropathy (Guillain Barre syndrome), chronic inflammatory demyelinating polyneuropathy, multiple sclerosis, Marchifava-Bignami disease, central pontine myelinolysis, Devic syndrome,

Balo disease, HIV- or HTLV-myelopathy, progressive multifocal leucoencephalopathy, or a secondary demyelinating disorder.

33. The pharmaceutical composition of claim 32, wherein the secondary demyelinating disorder is CNS lupus erythematodes, polyarteriitis nodosa, Sjögren syndrome, sarcoidosis or isolated cerebral vasulitis.

34. A pharmaceutical composition for treating a demyelinating disorder comprising an inhibitor of the interaction of glutamate with the α-amino-3-hydroxy-5-methyl-4-isoxazole-propionate (AMPA) receptor complex and a pharmaceutically acceptable carrier, wherein the inhibitor is L-glutamic acid diethylester, 2,3-dihydroxy-6-nitro-7-sulfamoyl-benzo(F)quinoxaline (NBQX), 6,7-dinitro-quinoxaline-2,3-dione (DNQX), 6-nitro-7-cyano-quinoxaline-2,3-dione (CNQX), 6-(1-imidazolyl)-7-nitro-quinoxaline-2,3(1H,4H)-dione (YM90K), (3RS,4aRS,6RS,8aRS)-6-(2-(1H-tetrazole-5-yl)ethyl)-decahydroiso-quinoline-3-carboxylic acid (LY293558), 9-methyl-amino-6-nitro-hexahydro-benzo(F) quinoxalinedione (PNQX), 8-methyl-5-(4-(N,N-dimethylsulphamoyl)phenyl)-6,7,8,9-tetrahydro-1H-pyrrolo[3,2h)-isoquinoline-2,3-dione-3-O-(3-hydroxybutyric acid-2-yl)oxime (NS 1209), 6,7-dichloro-2-(1H)-quinolinone-3-phosphonate (S 17625-2), and [1,2,3,4-tetrahydro-7-morpholinyl-2,3-dioxo-6-(trifluoromethyl)quinoxalin-1-y1]methyl-phosphonate (ZK200775), 1-(4-aminophenyl)-4-methyl-7,8-methylene-dioxy-5H-2,3-benzodiazepine (GYKI52466), (-)1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-4,5-dihydro-3-methylcarbamoyl-2,3-benzodiazepine (GYK153773), topiramate, 3-(2-chlorophenyl)-2-[2-[6-[(diethylamino)methyl]-2-pyridinyl]ethenyl]-6-fluoro-4(3H)-quinazolinone (CP465022) and 5-(2-[N,N-dimethylamino]oxy-phenyl)-3-phenyl-1,2,4-oxadiazol (BIIR561).

B1 Cont

35. The pharmaceutical composition of claim 34, wherein the demyelinating disorder is acute disseminated encephalomyelitis, acute demyelinating polyneuropathy (Guillain Barre syndrome), chronic inflammatory demyelinating polyneuropathy, multiple sclerosis, Marchifava-Bignami disease, central pontine myelinolysis, Devic syndrome,